

IN THE CLAIMS:

Claims 1-6, 8-14, 16-21, and 24-27 are amended herein. Claim 23 is cancelled. All pending claims and their present status are produced below.

1. (Currently Amended) A computer implemented method for gleaning file attributes independently of file format, the method comprising the steps of:

a non-application specific file attribute manager receiving a plurality of files in a plurality of formats;

the file attribute manager scanning the plurality of received files in the plurality of formats;

the file attribute manager gleaning file attributes ~~concerning~~ from each of the plurality of scanned files in the plurality of formats;

the file attribute manager storing the gleaned file attributes ~~concerning~~ from each of the plurality of scanned files as a plurality of records in a database; [[and]]

the file attribute manager indexing specific file attributes gleaned from a specific file, the specific file attributes being stored as [[a]] one of the plurality of records in the database, ~~the indexing proceeding concerning a specific file~~ according to contents of [[that]] the specific file[[.]]; ~~examining one of the plurality of files;~~

~~retrieving from the plurality of records in the database at least one record associated with the one of the plurality of files;~~

~~analyzing the gleaned file attributes gleaned from the one of the plurality of files, the gleaned file attributes having been retrieved from the at least one record associated with the file; and~~

~~determining a status of the one of the plurality of files responsive to analyzing the gleaned file attributes.~~

2. (Currently Amended) The method of claim 1 wherein:

- the specific ~~gleaned~~ file attributes ~~concerning~~ gleaned from the specific file are a function of a protocol according to which the specific file is transmitted.
3. (Currently Amended) The method of claim 1 wherein:
- the specific ~~gleaned~~ file attributes ~~concerning~~ gleaned from the specific file are a function of the format of ~~[[that]]~~ the specific file.
4. (Currently Amended) The method of claim 1 ~~further comprising: wherein~~ the file attribute manager indexing specific file attributes ~~being stored as a record in the database concerning a specific file~~ proceeds according to a secure hash of the contents of ~~[[that]]~~ the specific file.
5. (Currently Amended) The method of claim 1 ~~further comprising: wherein~~ the file attribute manager indexing specific file attributes ~~being stored as a record in the database concerning a specific file~~ proceeds according to a cyclical redundancy check of the contents of ~~[[that]]~~ the specific file.
6. (Currently Amended) The method of claim 1 further comprising:
- the file attribute manager receiving a plurality of copies of a selected file of the plurality of files ~~the same file~~; and
- the file attribute manager storing each of the plurality of copies as a separate record in the plurality of records ~~for each received copy of the file~~, each separate record ~~being~~ indexed according to the contents of the selected file of the plurality of files ~~file~~, such that the each separate record can be accessed by a single index.
7. (Original) The method of claim 1 further comprising:
- deleting records from the database after the records have been stored for a specific period of time.
8. (Currently Amended) The method of claim 1 wherein the non-application specific file attribute manager is incorporated into ~~at least one of the following~~ one selected from the group consisting of:
- a firewall;
- an intrusion detection system;

an intrusion detection system application proxy;

a router;

a switch;

a standalone proxy;

a server;

a gateway;

an anti-virus detection system; and

a client.

9. (Currently Amended) A computer readable medium containing a computer program product for gleaning file attributes independently of file format, the computer program product comprising program code for:

receiving a plurality of files in a plurality of formats;

scanning the plurality of received files in the plurality of formats;

gleaning file attributes ~~concerning from~~ each of the plurality of scanned files in the plurality of formats;

storing the gleaned file attributes ~~concerning from~~ each of the plurality of scanned files as a plurality of records in a database; [[and]]

indexing specific file attributes gleaned from a specific file, the specific file attributes being stored as [[a]] one of the plurality of records in the database ~~concerning a specific file~~, the indexing proceeding according to contents of [[that]] the specific file[.]];

examining one of the plurality of files;

retrieving from the plurality of records in the database at least one record associated with the one of the plurality of files;

analyzing the gleaned file attributes gleaned from the one of the plurality of files, the gleaned file attributes having been retrieved from the at least one record associated with the file; and

determining a status of the one of the plurality of files responsive to analyzing the
gleaned file attributes.

10. (Currently Amended) The computer program product of claim 9 further comprising:
program code for gleaned specific file attributes ~~concerning from the~~ [[a]] specific
file as a function of a protocol according to which the specific file is transmitted.
11. (Currently Amended) The computer program product of claim 9 further comprising:
program code for gleaned specific file attributes ~~concerning from the~~ [[a]] specific
file as a function of the format of [[that]] the specific file.
12. (Currently Amended) The computer program product of claim 9 ~~further comprising:~~
~~wherein the~~ program code for indexing file attributes ~~being stored as a record in the database~~
~~concerning a specific file~~ proceeds according to a secure hash of the contents of [[that]] the
specific file.
13. (Currently Amended) The computer program product of claim 9 ~~further comprising:~~
~~wherein the~~ program code for indexing file attributes ~~being stored as a record in the database~~
~~concerning a specific file~~ proceeds according to a cyclical redundancy check of the contents
of [[that]] the specific file.
14. (Currently Amended) The computer program product of claim 9 further comprising:
program code for receiving a plurality of copies of a selected file of the plurality of
files ~~the same file~~; and
program code for storing each of the plurality of copies as a separate record in the
plurality of records ~~for each received copy of the file~~, each separate record being
indexed according to the contents of the selected file of the plurality of files, such
that the each separate record can be accessed by a single index.
15. (Original) The computer program product of claim 9 further comprising:
program code for deleting records from the database after the records have been
stored for a specific period of time.

16. (Currently Amended) A computer system for gleaned file attributes independently of file format, the computer system comprising:

a reception module, configured to receive a plurality of files in a plurality of formats;
a scanning module, configured to scan the plurality of received files in the plurality of formats, the scanning module ~~being~~ communicatively coupled to the reception module;

a gleaned module, configured to glean file attributes ~~concerning from~~ each of the plurality of scanned files in the plurality of formats, the gleaned module ~~being~~ communicatively coupled to the scanning module;

a storage module, configured to store gleaned file attributes ~~concerning from~~ each of the plurality of scanned files as a plurality of records in a database, the storage module ~~being~~ communicatively coupled to the gleaned module; [[and]]

an indexing module, configured to index specific file attributes gleaned from a specific file being stored as [[a]] one of the plurality of records in the database ~~concerning a specific file~~, the indexing proceeding according to contents of [[that]] the specific file, the indexing module ~~being~~ communicatively coupled to the storage module~~[[.]]~~;

an examining module, configured to examine one of the plurality of files;

a retrieval module, configured to retrieve from the plurality of records in the database at least one record associated with the one of the plurality of files, the retrieval module communicatively coupled to the examining module and the storage module;

an analysis module, configured to analyze the gleaned file attributes gleaned from the one of the plurality of files, the gleaned file attributes having been retrieved from the at least one record associated with the file the analysis module communicatively coupled to the retrieval module; and

a status module, configured to determining a status of the one of the plurality of files responsive to analyzing the gleaned file attributes, the status module communicatively coupled to the analysis module.

17. (Currently Amended) The computer system of claim 16 wherein:
the gleaning module is further configured to glean specific file attributes ~~concerning~~
from a specific file which are a function of a protocol according to which the
specific file is transmitted.
18. (Currently Amended) The computer system of claim 16 wherein:
the gleaning module is further configured to glean specific file attributes ~~concerning~~
from a specific file which are a function of the format of ~~[[that]]~~ the specific file.
19. (Currently Amended) The computer system of claim 16 wherein~~[[:]]~~ the indexing
module is further configured to index specific file attributes ~~being stored as a record in the~~
~~database concerning a specific file~~ proceeds according to a secure hash of the contents of
~~[[that]]~~ the specific file.
20. (Currently Amended) The computer system of claim 16 wherein~~[[:]]~~ the indexing
module is further configured to index specific file attributes ~~being stored as a record in the~~
~~database concerning a specific file~~ proceeds according to a cyclical redundancy check of the
contents of ~~[[that]]~~ the specific file.
21. (Currently Amended) The computer system of claim 16 wherein:
the reception module is further configured to receive a plurality of copies of a
selected file of the plurality of files ~~the same file~~; and
the storage module is further configured to store each of the plurality of copies as a
separate record in the plurality of records ~~for each received copy of the file~~, each
separate record ~~being~~ indexed according to the contents of the selected file of the
plurality of files ~~file~~, such that the each separate record can be accessed by a
single index.
22. (Original) The computer system of claim 16 further comprising:
a deletion module, configured to delete records from the database after the records
have been stored for a specific period of time, the deletion module being
communicatively coupled to the storage module.
23. (Cancelled)

24. (Currently Amended) The method of claim [[23]] 1 further comprising:
responsive to determining the status of one of the plurality of files ~~the received file~~ to
be malicious, blocking the ~~file~~ one of the plurality of files.
25. (Currently Amended) The method of claim [[23]] 1 further comprising:
responsive to determining the status of ~~the received file~~ one of the plurality of files to
be legitimate, not blocking the ~~file~~ one of the plurality of files.
26. (Currently Amended) The method of claim [[23]] 1 further comprising:
applying at least one rule specifying how to use the gleaned file attributes to process
the [[file]] one of the plurality of files.
27. (Currently Amended) The method of claim 26 further comprising:
~~determining at least one of~~ selecting the at least one rule from a plurality of rules to
apply specifying how to use the gleaned file attributes to process the ~~file~~ one of
the plurality of files.